

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 77

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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WOLFGANG ALTHAUS  
Junior Party,<sup>1</sup>

v.

BRIAN OLDROYD,  
Senior Party.<sup>2</sup>

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Patent Interference No. 104,158

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FINAL HEARING: February 14, 2001

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<sup>1</sup> Patent No. 5,535,518, granted July 16, 1996, based on Application Serial No. 08/414,405, filed March 31, 1995.

<sup>2</sup> Application Serial No. 08/742,280, filed October 31, 1996.

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Before CALVERT, PATE, and MARTIN, Administrative Patent Judges.

PATE, Administrative Patent Judge.

FINAL DECISION UNDER 37 CFR §1.658(a)

This is a final decision in Interference No. 104,158. The junior party patentee is Wolfgang Althaus,<sup>3</sup> involved on his U.S. Patent No. 5,535,518. The patent is assigned to Warner-Lambert Company, and was filed for on March 31, 1995. The senior party is Brian Oldroyd, involved on his application Serial No. 08/742,280, filed for on October 31, 1996. Oldroyd has been accorded benefit of three prior applications as follows: U.S. Serial No. 08/313,055 filed May 8, 1995; PCT application Serial No. US93/03439, filed April 12, 1993; and U.K. Serial No. 9208098, filed April 13, 1992. The Oldroyd PCT application was published on October 28, 1993 and is 35 U.S.C. § 102(b) prior art against Althaus' involved patent claims. Oldroyd's application is assigned to The Gillette Company.

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<sup>3</sup> The Althaus Record will be abbreviated AR followed by the appropriate page number.

The claimed invention is directed to a razor cartridge mounted on a handle through the agency of a four-bar linkage for pivoting motion of the cartridge about an axis perpendicular to cutting edge. The count reads as follows:

Count 1

A wet razor comprising

(a) a handle,

(b) a razor head having at least one razor blade,  
and

(c) a connecting device for connection of the razor head to the handle,

(d) wherein the razor head is pivotable in two directions relative to the handle about a first pivot axis located essentially perpendicular to a cutting edge of the at least one razor blade and essentially in or above a plane of the razor blade, and

(e) wherein the connecting device comprises at least one four-bar mechanism having a lower transverse link, an upper transverse link and two connecting extension links, of which at least one of the transverse links is pivotally mounted about a second axis which is essentially parallel to the first pivot axis and intersects with at least one of the transverse links of the four-bar mechanism.

The claims of the parties that correspond to the count  
are:

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Althaus:            Claims 1-8,<sup>4</sup> 12, 13

Oldroyd:           Claims 9-28

### **Issues**

In a decision on preliminary motions (Paper No. 47), the Administrative Patent Judge (APJ) held claims 1-8, 12 and 13 of Althaus unpatentable over the prior art. Althaus does not challenge the holding with respect to claims 1-6, 8, 12 and 13.

The following issues were raised by the parties in their briefs at final hearing:

a) whether Althaus has sustained his burden of showing that the involved claims of Oldroyd, *viz.*, claims 9-28, are unpatentable to Oldroyd under 35 U.S.C. § 103;

b) whether Althaus has sustained his burden of showing that Althaus claim 9 should be designated as not corresponding to the count;

c) whether Althaus has sustained his burden of showing that Althaus claim 7 recites a separate patentable

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<sup>4</sup> Pursuant to redeclaration after the decision on preliminary motions. See Paper No. 48.

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invention from the subject matter of the interference and should be designated as not corresponding to the count.

### **Standard of Review**

On March 16, 1999, the Patent and Trademark Office issued an interim rule change of patent interference rule 37 CFR § 1.655(a). 64 Fed. Reg. 12900. The rule deals with the application of the abuse of discretion standard by a merits panel when considering an interlocutory order entered by a lone APJ acting in an interlocutory capacity. The rule has been changed to emphasize that a panel of the Board will resolve the merits of an interference without deference to any interlocutory order. Panels will, however, continue to apply the abuse of discretion standard but only with respect to procedural matters decided by the lone APJ acting in an interlocutory capacity.

With regard to the date of effectiveness of the amended rule, the interim rule notice states that the amended rule is

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effective as of the date of publication, **viz.**, March 16, 1999. Accordingly, the review of the APJ's decision on the preliminary motions has been decided in the following decision without deference to the prior decision by the lone APJ.

**Patentability of Oldroyd claims 9-28**

Althaus has moved for judgment under 37 CFR § 1.633(a) that claims 9 through 28 of Oldroyd are unpatentable under 35 U.S.C. § 103. It is noted that the parties are in agreement that, under this motion for judgment, Oldroyd claims 10-28 will stand or fall with Oldroyd independent claim 9. See Oldroyd Brief at 29.

Althaus argues that these claims 9-28 are unpatentable over the combined teachings of the following references:

Terry et al. (Terry) 1977 (British patent)	1,460,732	Jan. 6,
Kirk 1983 (British patent)	2,116,470	Sept. 28,
Ishida 1986	61-54433	Nov. 21,

(Japanese Laid Open Application)

The following findings represent the scope and content of the prior art cited by Althaus as providing a ***prima facie*** case of obviousness. All three references<sup>5</sup> are in the field of wet shaving razors with elongate handles topped with a transversely extending blade-carrying head or cartridge. The handle is used to drag the blade-carrying head over the skin to cut body hair thereon.

The U.K. document to Kirk discloses a razor with a head 1 that can pivot about two perpendicular axes. One axis, designated as YY, is parallel with the cutting edge and is conventional. Page 1, lines 11-33. Another axis is a rocking axis that extends transversely of the length of the head for rocking motion so that the ends of the head can move relative to one another. ***Id.*** at 59-67.

Turning to the structure of Kirk's disclosed razor, the razor handle 2 is provided with an integral plate-like

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<sup>5</sup> The three references are of record as Althaus exhibits 1-3.

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portion 3 which contains an arcuate wall portion 6. In this arcuate wall portion is mounted a generally C-shaped yoke member 10. The free ends of the yoke portion carry pivot pins 11 for mounting the

lugs of the blade-containing head. Page 2, lines 1-5. Thus, the head 1, when mounted on the pivot pins 11 can rock about an axis. The rocking axis, located at XX in Figures 1 and 2 of Kirk, is substantially parallel with the tangent plane T and transverse to the length of the head. *Id.* at 16-19. The two axes XX and YY may intersect or be slightly offset, but both are preferably close to the blade edge in order to provide maximum conformance

to the skin surface during shaving. *Id.* at 37-40. From the orthogonal view in Figure 2, it is difficult to determine the exact spatial relationship of axes XX and YY in this embodiment. Certainly any attempt to locate the center of rotation of the C-shaped yoke member 10 is highly

conjectural. At most, going by the discussion at page 2, axis XX must be considered as merely adjacent or intersecting axis YY. There is no disclosure of axis XX lying on or below a surface to be shaved.

In a second embodiment of Kirk, in Figures 4-9, a swivel plate 30 has at its center a pivot pin 31 which engages in hole 22 on integral head plate 21. The pivot pin 31 defines axis XX in the embodiment of Figures 4-9. From the orientation of pivot pins 51 which define axis YY in Figure 4, it is our finding that the pivot pin 31 and thus the axis XX of this embodiment is somewhat below the blade-containing cartridge or head, and thus

somewhat above the surface to be shaved, as argued by Oldroyd in his fact statement 37 on page 2 of the Oldroyd brief. Axis XX does not lie on or below the surface to be shaved.

The last embodiment disclosed by Kirk uses an arched metallic foil F with a plurality of apertures A therein. The apertures have sharpened edges. Page 3 at 56-61. In this embodiment, axis XX is clearly marked in Figure 12. It is not on or below a surface to be shaved.

To summarize our findings with respect to the location of axis XX in Kirk, the first embodiment teaches that axis XX intersect axis YY or be adjacent thereto. If it intersects YY, it is not at or below the surface to be shaved. With respect to the "adjacent to" language, the reference is silent as to in which direction the axis is displaced from axis YY and by what amount. To expand this to a teaching of an axis at or below the surface to be shaved is to base a necessary factual finding on speculation or conjecture. The two other embodiments of Kirk clearly disclose axis XX as well above the surface to be shaved. Thus, it is our finding that Kirk never teaches nor suggests a pivot axis XX at or below the surface to be shaved.

The differences between the Kirk reference and Oldroyd's claimed subject matter are two. As explained above, Kirk does not teach a pivot axis XX below the surface to be shaved. Kirk also does not teach a four-bar linkage to carry the cartridge carrier.

The Terry reference discloses a wet shaver with a handle 10 which supports a shaving unit 20 containing the

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shaving blades. In the Figure 1 embodiment, the shaving unit 20 is mounted on an inner yoke 14 by means of rails 21. In use, the shaving unit 20 is able to pivot about the axis of the pivot pins 13 which is adjacent to and parallel to the cutting edges of the blades 22 and 23. Terry at 2, lines 76-95.

In the second embodiment shown and discussed, shaving unit 20 is mounted on stationary yoke 26 by pivot pins 29. Here again, pivoting about an axis defined by pins 29 is parallel to the blade edges. The razor shown in Figures 3, 4a, and 4b uses a bar linkage 33 to pivotally mount the cartridge carrier for pivotal movement about an axis parallel to the blade edges. The four-bar linkage of Terry has two transverse links 36 and 37 each pivotally mounted to the handle 31 via spindles 40 and 41. Terry also shows the claimed extension links 34 and 35 which are pivotally mounted to the cartridge carrier 38. Terry at 2, line 122, to 3, line 15. Terry discloses rails to mount the cartridge on the four-bar linkage.

Finally, Terry further discloses an additional embodiment in which the pivoting motion is provided by a shell

bearing 44 with an axis of rotation parallel to the blade edge in cartridge 20. We agree with Althaus that the shell bearing 44 is a yoke-like structure. We further agree that the yoke-like shell bearing 44 and the four-bar linkage are similar mechanical

elements in the same position in the razor. Inasmuch as Terry discloses this shell bearing, which has a structure analogous to the yoke in Kirk, and inasmuch as Terry suggests that the four-bar linkage is an expedient mechanical substitute for the yoke-like shell bearing, Althaus' argument that it would have been obvious to use the four-bar linkage in Kirk is well taken.

Terry differs from the subject matter of Oldroyd claim 9, in that while it shows the claimed four-bar linkage for mounting a razor cartridge for pivotal movement, the movement is only about an axis parallel to the blade edge. Terry does not show pivoting on an axis perpendicular to the blade edge, nor does Terry show such an axis at or below the surface to be shaved.

Finally, Ishida discloses a wet shaving razor with a handle 1 and support arms 8 pivotally mounted to the handle by

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pins 1a. On the opposite end of the pins 8, mounted by pivots 8a

is a cartridge support platform 13 provided with rails 16 for receiving a blade containing cartridge 17. Although the translation of Ishida refers to the mounting as a four-bar linkage at 4, paragraph 3, Ishida is not a four-bar linkage as claimed and as disclosed in Terry. The razor of Ishida does not pivot about an axis but shifts or translates as a unit always remaining parallel

to the hemispherical base 2. According to Althaus, Ishida has been cited to teach a linkage connecting the cartridge to the handle with the linkage lying in the correct plane. Be that as it may, Ishida differs from the claimed invention in not showing

the claimed four-bar linkage, in not showing the correct pivotal movement, and in not showing a pivot axis on or below the surface being shaved.

We are in agreement with Althaus and both parties' experts as to the level of skill in this art. The level of

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skill has been described as a mechanical engineering degree and several years of experience in the wet shaving razor art.<sup>6</sup>

With the above-noted factual findings in mind, it is our determination that the subject matter of Oldroyd claim 9 would not have been obvious to one of ordinary skill in view of the combined teachings of these references. We do not reach the

issue of motivation to combine **vis-a-vis** impermissible hindsight in view of our finding, in agreement with factual finding 37 of Oldroyd, that the references taken singly or together do not teach the claim limitation that the pivot axis lies on or beneath the surface being shaved. Only Kirk teaches a pivot axis perpendicular to the edge of the blades, and Kirk teaches that this axis XX should be adjacent to the pivot axis YY in one embodiment

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<sup>6</sup> See Jacobson at AR30.

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and well above the surface to be shaved in the other two embodiments. To extrapolate such a disclosure into a teaching of an

axis on or below the surface being shaved is not supported by the teachings of Kirk. As we stated previously, it is based on mere speculation or conjecture.

For the reasons above, Althaus has not sustained his burden of showing claims 9-28 of Oldroyd are unpatentable under 35 U.S.C. § 103.

#### **Althaus Claim 7**

We turn to the issue of whether Althaus has established that claim 7 of the Althaus patent should be designated as not corresponding to the count in interference. The test we must apply is found in 37 CFR § 1.601(n). The rule reads as follows:

Invention (A) is the **same patentable invention** as an invention "B" when invention "A"

is the same as (35 U.S.C. 102) or is obvious (35 U.S.C. 103) in view of invention "B" assuming invention "B" is

prior art with respect to invention "A".  
Invention "A" is a **separate patentable invention** with respect to invention "B" when invention "A" is new (35 U.S.C. 102) and non-obvious (35 U.S.C. 103) in view of invention "B" assuming invention "B" is prior art with respect to invention "A".

The issue of whether Althaus has shown that Althaus' claim 7 does not correspond to the count is complicated by the proper construction to be placed on the claim term that one side

is longitudinally adjustable. Althaus' main brief argues that this limitation should be construed as adjustable in length.

The

APJ in his motion decision interpreted this limitation to refer

to the buckling of the sides of the four-bar linkage as shown in

Figure 3 of the involved patent. The Althaus patent is notably silent as to how any side of the four-bar linkage can be made adjustable. The Althaus brief, similar to the Althaus patent, does not explain how any side is made adjustable in length, and all panel members understood Althaus' counsel to

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be arguing that the length of a side of Althaus can be changed or adjusted during design and manufacture.<sup>7</sup> Accordingly, we will adopt the interpretation urged by counsel during the hearing and construe

claim 7 of Althaus to be directed to subject matter wherein the length of a side of the four-bar linkage can be changed during design and manufacture.

In our view, the subject matter of claim 7 as construed by counsel would have been obvious under the 37 CFR § 1.601(n) test in view of the teachings of the Oldroyd PCT publication or the documentary evidence from Kirk, Terry or Ishida when combined with the subject matter of Althaus claims 1-6 taken as prior art. The various sizes and shapes of links or sides in a four-bar linkage are evidence of a recognition in this art that the amount or nature of pivoting is changed by modifying the size and shape of the sides in the four-bar linkage. Consequently, changing the size of the links during design and

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<sup>7</sup> This seems to be the construction advanced by Ortiz at AR4-5. See also AR19-23.

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manufacture must be held to be a mere designer's choice, obvious as well within the ordinary skill in this art. Since the subject matter of claim 7 would have been obvious from the prior art, including the references stated above, in combination with Althaus claims 1-6, under the 37 CFR § 1.601(n) test, claim 7 is properly designated as corresponding to the count.

#### **Althaus Claim 9**

In his decision on motions, the APJ determined that the subject matter of claim 9 was directed to a separate patentable invention. We review the showing by Althaus that was a basis for the motion granted by the APJ. The test for separate patentable invention is the already articulated 37 CFR § 1.601(n).

The reason given by the APJ was that the subject matter of guide rails would not have been an obvious inclusion on the razor of Althaus' claims 1-6. However, as we have noted above, Kirk, Terry and Ishida all show guide rails to be conventional in

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this art to attach a cartridge to a razor handle. In our view, it would have been obvious to use guide rails in the apparatus of Althaus' claim 1 taken as prior art. Thus, we reverse the decision of the APJ, and we will redeclare the interference with claim 9 of the Althaus patent designated as corresponding to the count.

Inasmuch as guide rails are an obvious inclusion, based on the teachings found in Kirk, Terry and Ishida, on the device disclosed in the Oldroyd PCT document, which is prior art to Althaus, we hereby further conclude that the subject matter of claim 9, newly reinstated in the interference, is unpatentable over the prior art. Accordingly, judgment as to claim 9 based on unpatentability over the prior art will be entered against Althaus, hereinbelow.

**Judgment**

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Judgment in Interference No. 104,158 is entered against Wolfgang Althaus, the junior party. Wolfgang Althaus is not entitled to his patent claims 1-9, 12 and 13, which claims correspond to the count in interference. Judgment is entered in favor of Brian Oldroyd, the senior party. Brian Oldroyd is entitled to a patent containing claims 9-28, which claims correspond to the count in interference.

	IAN A. CALVERT	)	
	Administrative Patent Judge	)	
		)	
		)	
		)	BOARD OF
PATENT		)	
	WILLIAM F. PATE, III	)	APPEALS AND
	Administrative Patent Judge	)	
INTERFERENCES		)	
		)	
		)	
	JOHN C. MARTIN	)	
	Administrative Patent Judge	)	

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